

QUALITY ASSURANCE ANNUAL REPORT AND WORK PLAN

QUALITY STAFF

FY 2004/2005

Submitted by:

Reggie Cheatham
Director, Quality Staff

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1. QUALITY MANAGEMENT RESOURCES

1.1 Personnel Resources

	FTE	
	Actual FY2004	Projected FY2005
Organization's total filled FTE positions:	14.0	17.0
EPA (and other Federal) FTE involved in the management of QA and QC activities:	11.0	13.5
EPA (and other Federal) FTE involved in QA and QC technical support activities:	1.5	2.0
EPA FTE involved in other non-technical QA and QC support activities:	1.5	1.5
Contractor FTE involved in QA and QC support activities:	4.8	4.8

1.2 Financial Resources

	Estimates (\$K)	
	Actual – FY2004	Projected – FY2005
Extramural Resources (not including travel funds or training):	975	975
Travel oversight, surveillance, and audits/assessments:	96.1	96.1
Training (including registration fees) and travel for training:	57	57

1.3 Adequacy of Resources

The Quality Staff began Fiscal Year 2004 with four vacancies corresponding to the retirement of senior staff. At full strength, the resources allocated to the work of the Quality Staff are not optimal, and this year a serious shortfall of four (4) FTE has exacerbated the situation, at least temporarily. Historically, the work of the Quality Staff

has been interrupted by higher priorities (e.g., laboratory fraud), and adjustments have been made to meet these agency wide challenges. The Quality Staff expects to return to full staffing levels in Fiscal Year 2005.

2. TRAINING

2.1 Needs Assessment

Needs of Quality Staff Members. The training needs of the Quality Staff are developed by the individual staff members and documented in their mandatory Individual Development Plans (IDPs). Staff members then search out the training they need and schedule it to fit into their work load.

Agency QA Training Needs. A needs assessment survey was conducted in September 2003. The results were evaluated and work began on developing courses to address the topics identified through the assessment. The Quality Staff continues to set priority for Agency training development based upon these assessments.

2.2 QA and QC Courses Provided and Taken

QA and QC Courses Provided by Organization			
Course Title	Supplier	# Attendees	
		from Org.	from Other Orgs. (identify)
Courses given at the Annual Meeting in Tampa, April 2004			
Introduction to QA Project Plans	Quality Staff	0	35 Trained. From EPA (NPO, ORD, RO) other Fed, state, private sector
Assessing Quality Systems	Quality Staff	0	41 Trained. From EPA (NPO, ORD, RO) other Fed, state, private sector
Understanding Environmental Multivariate Data	Quality Staff	0	23 Trained. From EPA (NPO, ORD, RO) other Fed, state, private sector

QA and QC Courses Provided by Organization			
Course Title	Supplier	# Attendees	
		from Org.	from Other Orgs. (identify)
Courses given at the Annual Training Conference in Manchester, September 2004			
Interpretation of Monitoring Results	Quality Staff	0	58 Trained. From EPA (NPO, ORD, RO) other Fed, state, private sector
QA for Environmental Technology Design	Quality Staff	0	3 Trained. From EPA (NPO, ORD, RO) other Fed, state, private sector
Introduction to Data Quality Objectives	Quality Staff	0	62 Trained. From EPA (NPO, ORD, RO) other Fed, state, private sector
Data Quality Assessment: Statistical Methods for Practitioners	Quality Staff	0	62 Trained. From EPA (NPO, ORD, RO) other Fed, state, private sector
Introduction to QA Project Plans	Quality Staff	0	40 Trained. From EPA (NPO, ORD, RO) other Fed, state, private sector
Secondary Use of Data	Quality Staff	0	32 Trained. From EPA (NPO, ORD, RO) other Fed, state, private sector
Introduction to EPA Quality System Requirements	Quality Staff	0	30 Trained. From EPA (NPO, ORD, RO) other Fed, state, private sector
Assessing Quality Systems	Quality Staff	0	53 Trained. From EPA (NPO, ORD, RO) other Fed, state, private sector
Training for Non-trainers	Quality Staff	0	15 Trained. From EPA (NPO, ORD, RO) other Fed, state, private sector
Information Quality Guidelines	Quality Staff	0	20 Trained. From EPA (NPO, ORD, RO) other Fed, state, private sector
Courses given at various times throughout 2004			
Quality Requirements for Grants and IAGs (a module in the Grants PO training course)	Quality Staff	0	c. 112 EPA employees trained. Course given approximately every quarter.
Systematic Planning: Visual Sampling Plan	Quality Staff	0	45 OSWER Remedial Action Managers Conference

QA and QC Courses Provided by Organization			
Course Title	Supplier	# Attendees	
		from Org.	from Other Orgs. (identify)
Developing QA Project Plans	Quality Staff	0	25 Office of Pesticide Programs Laboratory staff

QA and QC Courses Taken by Organization		
Course Title	Supplier	# Attendees (from Org.)
Introduction to Dream Weaver: Web Design	USDA	1
Advanced Dream Weaver: Web Design	USDA	1
Re-certification: Contracting Officer Representative Training	EPA	7

2.3 Other Training Information

At present, the Quality Staff has developed 18 courses. Of these, 11 have been posted on the web, 5 are final but not yet on the web, and 4 have been piloted but are still under development.

Posted on the Quality System Web site in 2004:

1. Assessing Quality Systems – Finalized
2. Interpreting Multivariate Data – Finalized
3. Introduction to Data Quality Indicators – Finalized
4. Introduction to Quality Assurance Project Plans – Revised

Finalized

5. Data Validation/Verification
6. Censored Data and Detection Limits
7. Analyzing Monitoring Data
8. Sampling Designs to Support QA Project Plans
9. Statistical Concepts for QA Practitioners

Final steps of development:

10. Using Visual Sampling Plan in Planning for Data Collection
11. Introduction to Modeling QA Project Plans
12. Introduction to QA Project Plans for Modeling
13. Introduction to Geospatial Data QA Project Plans

In 2004, the Quality Staff continued its certification with the International Association for Continuing Education and Training (IACET) of authorized providers. As an authorized provider, the Quality Staff awards the IACET Continuing Education Unit (CEU) for more than 60% of its training courses. This certification demonstrates that the Quality Staff training curriculum is compliant with proven, research-based criteria supported by the U.S. Department of Education and dedicated to high standards in continuing education and training for the EPA Quality Community. CEU records are maintained for 7 years by the Quality Staff and are available upon request by training participants. To maintain these records, the Quality Staff developed a database for tracking Continuing Education Units (CEUs).

3. QUALITY SYSTEM-RELATED ACCOMPLISHMENTS

3.1 Innovative Practices

The Quality Staff developed detailed Operating Plans based on the goals identified in the 2001 Quality Staff Strategic Plan. These strategic goals are:

- Documenting Quality System Policies and Procedures
- Managing Change
- Improving Outreach to and Collaboration with the Environmental Community
- Communicating the Message
- Meeting the Agency's QA Training Needs
- Assessing Quality Management Systems
- Improving Organizational Strength in the Quality Staff

(Note: Two of the goals were combined into a single operating plan.) Each Operating Plan contains a description of the activities needed to accomplish the goal, performance measures, corrective actions, and tracking procedures. Each Operating Plan also identifies Standard Operating Procedures that are available or are needed to accomplish the goal. The Operating Plans were updated for FY 2004. The Quality Staff also developed Work Plans to support each Operating Plan. Work Plans identify tasks or activities for the fiscal year with estimated resource requirements.

The Quality Staff updated the template for QA Annual Reports and Work Plans to provide requested clarification on certain elements.

3.2 Revisions to Quality Management Plan

Not Applicable. The Quality Staff's roles and responsibilities are defined in EPA Order 5360.1.

3.3 Technical Assessments

Technical Assessments			
Type	Org./ Project Assessed	Assessor (and Org.)	Date(s)
Technical Systems Audit	National Enforcement Investigations Center, (NEIC) Denver	OECA with Diane Sims of the Quality Staff	July 2004
Quality and Technical System Assessment	OPPTS Microbiology Laboratory	Betsy Grim, OPPTS, with Margo Hunt of the Quality Staff	Feb 2004

3.4 Technical Assistance

Quality Management Plans		
<i>Organization</i>	<i>Status</i>	<i>Date Approved</i>
Office of International Activities (OIA)	Approved	April 2004

Other Technical Assistance	
<i>Organization</i>	<i>Type of Assistance</i>
OEI	Customer Profile
Region 7	Reviewed statistical portion of QA Project Plan
QA Community	Revised HQ conference calls to meet needs of participants
QA Community	Approximately 15 instances of statistical assistance

Other Technical Assistance	
<i>Organization</i>	<i>Type of Assistance</i>
QA Community	Updated Community list and Lotus Notes groups
HQ QS	Developed discussion databases
Various	Email requests to <i>quality@epa.gov</i> : Responded to 245 requests for assistance. Added 190 individuals to notification list.

3.5 QA Guidance

3.5.1 Survey of Guidance Needs

The Quality Staff continued to respond to a survey conducted in April 2003 to assess the Agency's needs for QA guidance. The top three areas of need were Assessments, Statistics, and Laboratory Data Quality. A large fraction of responders also favored: (1) abbreviated versions of existing guidance; (2) case studies; and, (3) program specific examples. The results will be used to direct future guidance document development.

3.5.2 QA Guidance Issued

- None

3.5.3 QA Guidance Development Completed

- Guidance on Data Quality Indicators

3.5.4 QA Guidance Peer Reviewed

- Data Quality Assessment: Reviewers's Guide
- Data Quality Assessment: Statistical Tools for Practitioners

3.5.5 QA Development Initiated

- Linking MQOs to DQOs, (5-year update)
- Guidance on Data Quality Objectives, (5-year update)
- Two Case Studies (air and hazardous waste) to support training courses

3.6 Publications and Presentations

- “Effective Use of Data Quality Indicators,” European Conference on Quality. May 2004, John Warren
- “Managing Data Quality Through Effective Quality Assurance Project Plans,” European Conference on Quality, May 2004, John Warren
- “Quality Systems at the Environmental Protection Agency,” EPA Region 6 Annual Quality Conference for States and Tribes, Dallas, TX, October 2004, Reggie Cheatham

3.7 Awards and Recognition

Quality Staff received a group OEI Customer Service Award for the processing and approval of all EPA organizational Quality Management Plans that had been in backlog.

3.8 Other QA Management Accomplishments

The Quality Website continues to be a premier source of information on QA. Users from EPA, other federal agencies, State and Local governments, foreign governments, the private sector, academia and members of the general public visit the site and download documents. This year we had 147 requests for information and 254 additions to our email notification list.

Quality System Mapping. The Quality Staff and OEI’s Office of Information Acquisition and Analysis are developing a framework paper on quality in the Agency by mapping the different quality-related activities that occur across the Agency. These activities include but are not limited to the Agency’s quality System, the Information Quality Guidelines, and the Agency Peer Review System. The initial purpose of this framework paper is to begin discussions with both management and technical staff aimed at identifying all existing policies and procedures that govern quality aspects of Agency products. Once a framework has been agreed upon, the next steps will be to use the framework to identify any gaps in tools for conducting projects and to eliminate any duplicate policies and guidance.

Contracts Management Manual: The Office of Acquisition Management released for Directives Clearance the proposed new chapter on QA contained in the Contracts Management Manual. This chapter is the product of a cross-Agency workgroup led by the Quality Staff. The workgroup was charged with updating the quality system requirements for EPA’s solicitations and contracts. The workgroup is developing a website to help QA personnel, Contracting Officer Representatives (WAMs POPOs, etc.,) and contracting officers implement the revised procedures for quality in contracts.

Communication: The Quality Staff fostered communication among members of the QA community by maintaining the QA community list and e-mail groups, and by sponsoring three monthly conference calls. We revised the HQ call structure to meet the needs of participants.

Work Group Participation: Quality Staff members participated in the following Work Groups:

- ANSI International Forum
- ANSI-RAB National Accreditation Program EMS Council
- ANSI Z1 Accredited Standards Committee on Quality Management, Environmental Management, Dependability, and Statistics
- Accreditation and Certification Board/Registrar Accreditation Board
- Contracts Management Manual Revision Workgroup
- CREM/Model Evaluation Guidance Development
- EMS Office Directors Policy Council
- Environmental Information Management System Development Team
- Environmental Lab Results Data Standard Action Team
- Environmental Measurements eXtensible Mark-up Language (XML) Action Team
- EPA Web Workgroup
- EPA Environmental Management Systems Workgroup
- EPA's Science Advisory Board Implementation Workgroup
- EPA's Science Inventory Implementation Workgroup
- EPA's Small Business Strategy Development and Implementation Workgroup
- FASTAC Workgroup
- FEM Method Validation Team
- FEM Combining Conferences Action Team
- FEM Laboratory Competency Action Team
- Grants Customer Relations Council
- Homeland Security Laboratory Capability Workgroup
- Inter Governmental Data Quality Task Force (IDQTF)
- INELA On-Site Assessment Committee
- INELA Quality Systems Committee
- Lab Quality Systems Practices Implementation Plans Workgroup
- Microbiology Subcommittee National Data Base Committee
- National Primary Drinking Water Regulations: Analytical Method for Uranium
- National Primary Drinking Water Regulations: Revisions to the Total Coliform Monitoring and Analytical Requirements and Additional Distribution System Requirements
- National Primary and Secondary Drinking Water Regulations: Approval of Additional Method for the Detection of Coliforms and *E. coli* in Drinking Water
- NELAC On-Site Assessment Committee, Quality System Committee

- NELAC Standards Review Committee
- OEI IT representatives
- OEI Communications Workgroup
- OEI/Geospatial Data Workgroup
- OEI System Life Cycle Management Policy
- OEI Tribal Strategy Workgroup
- OEI's Strategic Planning Workgroup
- OGWDW Drinking Water Certification Manual, Microbiology Committee
- Research and Science Architecture Workgroup for Quality Program Issue
- Revisions to the Unregulated Contaminant Monitoring Regulation for Public Water System; Proposed Rule
- Standard Methods, Part 9000 (microbiology) coordinator
- Statistical Policy Advisory Committee
- U.S. Technical Advisory Group to ISO Technical Committee 176 on Quality Management
- U.S. Technical Advisory Group to ISO Technical Committee 207 on Environmental Management

Quality Staff Administrative Procedures. The Quality Staff developed and/or updated SOPs for:

- Steps for Issuing Products (including Quality System Series Guidance)
- Procedure for Finalizing Documents – updated
- Procedure for 5-year Updates of Existing QA Guidance Documents.

4. ASSESSMENTS OF QUALITY SYSTEMS

Quality System Assessments		
Quality System Assessed	Assessor (and Org.)	Date(s)
Office of Transportation and Air Quality in OAR	Esperanza Renard, Quality Staff	October 2003
Office of Federal Activities in OECA	Lisa Doucet, Quality Staff	October 2003
Office of Atmospheric Programs in OAR	Gary Johnson, Quality Staff	April 2004
Region 8	Pat Mundy, Quality Staff	May 2004
Region 7	Esperanza Renard, Quality Staff	June 2004

Quality System Assessments		
Quality System Assessed	Assessor (and Org.)	Date(s)
Office of Radiation and Indoor Air in OAR	Gary Johnson, Quality Staff	June 2004
Office of Administrative Services in OARM	Esperanza Renard, Quality Staff	July 2004
Office of Environmental Information: AAship	Pat Mundy, Quality Staff	July 2004
Office of Human Resources and Organizational Services in OARM	Esperanza Renard, Quality Staff	July 2004
Region 9	Thomas Dixon, Quality Staff	August 2004
Office of International Activities	Diane Sims	August 2004
Office of Policy, Economics, and Innovation in OA	Vincia Holloman	September 2004

5. PLANNED ACTIVITIES

5.1 Training

5.1.1 *Planned Events*

- Annual Quality Systems Training Conference: October 2005, with multiple offerings of courses from the Quality Systems Training curriculum.
- 24rd National Conference on Managing Environmental Quality Systems: April 2005, with multiple offerings of courses from the Quality Systems Training curriculum.
- Quality Assurance - Grants Project Officer Training: On-going Support throughout the year.

5.1.2 *Development of Training Courses*

Development continues on the following training courses:

- Using Visual Sampling Plan in Planning for Data Collection
- Introduction to Modeling QA Project Plans
- Introduction to QA Project Plans for Modeling

- Introduction to Geospatial Data QA Project Plans

5.2 Guidance

Development will continue on the documents listed below.

Projected to be issued in FY05

- Guidance on Data Quality Indicators
- Guidance on Quality Assurance for Environmental Technology Design, Construction, and Operation
- Guidance on Systematic Planning for Environmental Projects
- Data Quality Assessment: Statistical Techniques
- Guidance on Data Quality Assessment

Projected to be Peer Reviewed in FY05

- Integrating Systematic Planning and QA Project Plans
- Data Quality Assessment: An Overview
- Guidance on Applying Performance and Acceptance Criteria to Quality Assurance Project Plans
- Guidance on Data Quality Objectives (5-year update)
- Linking MQOs to DQOs
- Two Case Studies (air and hazardous waste)

5.3 Assessment of Data Systems

The Quality Staff plans to continue its assessment of EPA's data quality against performance measures developed in FY2001. Analysis and mapping of data systems supporting Agency's decisions will provide insight to data directories, system architecture, reporting hierarchy, standards and business rules, statutory language and rule making documentation. Seven data systems have been mapped to characterize the quality and transparency of the information contained in the databases.

5.4 QMP Review

The Quality Staff expects to review several expiring QMPs over FY05. Quality Staff has begun planning to address this major resource commitment.

5.5 Management Assessments

We have tentatively laid out a management assessment schedule for the next three years as follows.

FY05:

OSWER: OSRTI, OUST, OBCR, OEPPR, FFRRO

OW: AIEO, OWOW, OWM, OST

Regions: 1, 4, 10

FY06:

OPPTS: OPPT, OPP, OSCP

ORD: NRMRL, NCER, NERL, NHEERL, NCEA , NHRSC.

Regions: 2, 3, 5

5.6 Workgroup Participation

The Quality Staff anticipates continuing participation in OEI workgroups listed in Section 3.8.